

AMENDMENTS TO THE CLAIMS

Please amend the claims as set forth below in marked-up form. In addition, please cancel rejected claims 1 and 5, the subject matter of which is to be pursued in a separate continuation application.

1. (Cancelled)

2. (Currently Amended) A semiconductor device comprising:

an emitter layer;

a base layer; and

a collector layer, the sum of a band gap and electron affinity of said emitter layer being larger than the sum of a band gap and electron affinity of said base layer,

wherein said base layer contains Bi; and~~The semiconductor device according to claim 1,~~
~~wherein~~

said base layer contains GaAsBi.

3. (Currently Amended) A semiconductor device comprising:

an emitter layer;

a base layer; and

a collector layer, the sum of a band gap and electron affinity of said emitter layer being larger than the sum of a band gap and electron affinity of said base layer,

wherein said base layer contains Bi; and~~The semiconductor device according to claim 1,~~
~~wherein~~

said base layer contains GaAsBiN.

4. (Currently Amended) A semiconductor device comprising:

an emitter layer;

a base layer; and

a collector layer, the sum of a band gap and electron affinity of said emitter layer being larger than the sum of a band gap and electron affinity of said base layer,

wherein said base layer contains Bi; and~~The semiconductor device according to claim 1,~~
~~wherein~~
said base layer contains InPBi.

5. (Cancelled)

6. (Currently Amended) A semiconductor device comprising:
an emitter layer;
a base layer; and
a collector layer, the sum of a band gap and electron affinity of said emitter layer being
larger than the sum of a band gap and electron affinity of said base layer,
wherein said base layer contains Bi; and~~The semiconductor device according to claim 1,~~
~~wherein~~
said emitter layer includes at least one selected from the group consisting of GaAs,
AlGaAs, InGaP, and ~~In~~InP.

7. (Currently Amended) A semiconductor device comprising:
an emitter layer;
a base layer; and
a collector layer, the sum of a band gap and electron affinity of said emitter layer being
larger than the sum of a band gap and electron affinity of said base layer,
wherein said base layer contains Bi; and~~The semiconductor device according to claim 1,~~
~~wherein~~
said collector layer includes at least one selected from the group consisting of GaAs,
InGaAs, and InP.